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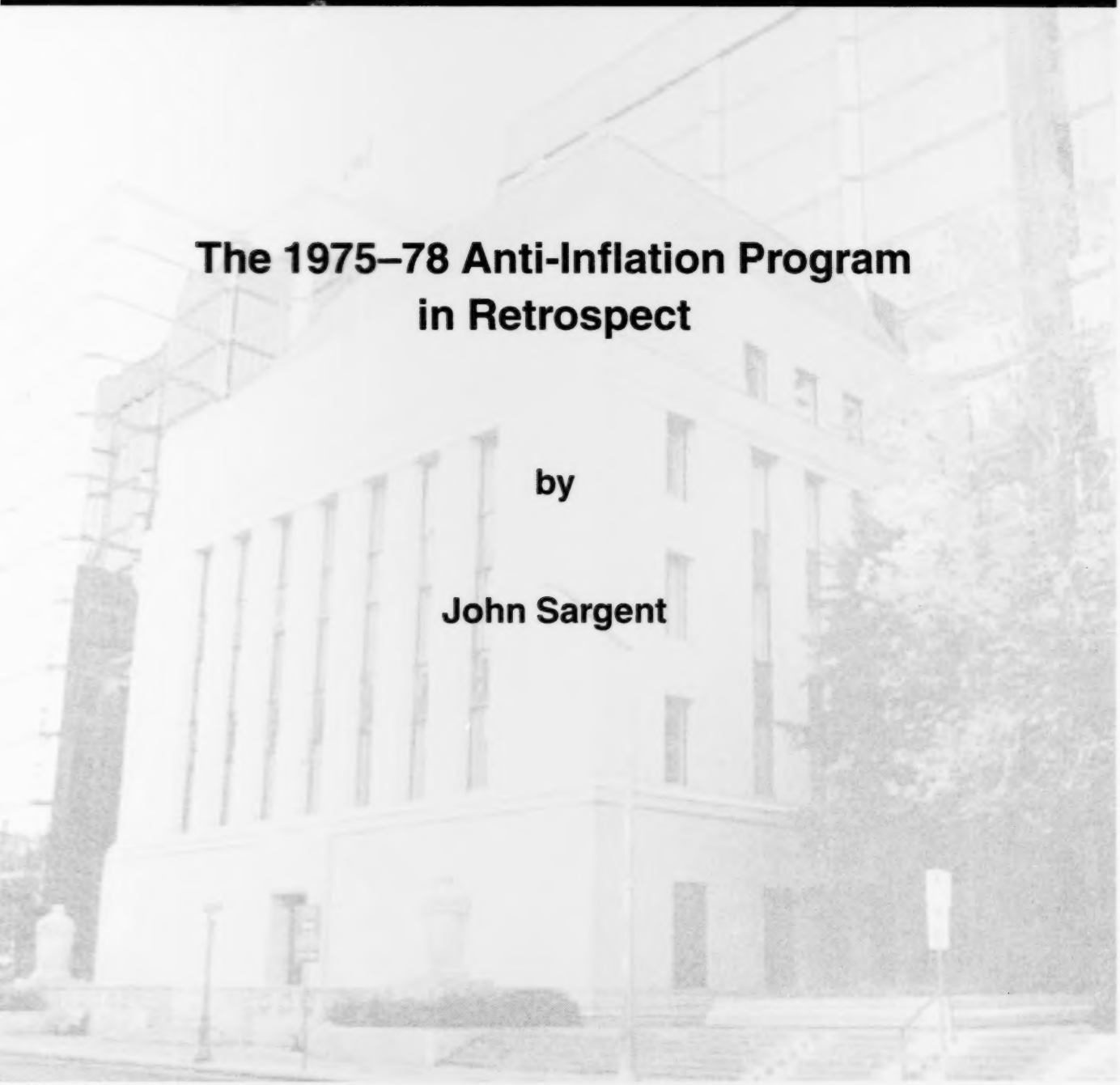

The 1975–78 Anti-Inflation Program in Retrospect

by

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A draft of this paper was circulated in advance of a seminar organized by the Bank of Canada to mark the 30th anniversary of the Anti-Inflation Board in Toronto, 6 October 2005. This paper incorporates responses to several of the comments at the seminar.

The views expressed in this paper are those of the author.
No responsibility for them should be attributed to the Bank of Canada.

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I also wish to thank the Fiscal Policy Division, Department of Finance, for information relating to the estimates of cyclically adjusted budget balances currently published by the Department (Canada. Department of Finance 2004, Table 45).

Abstract

The author provides an overview of the 1975–78 Anti-Inflation Program (AIP), in a background document prepared for a seminar organized by the Bank of Canada to mark the AIP's 30th anniversary. After reviewing Canada's experience with, and policy response to, inflation in the decade preceding the introduction of the AIP, the author sets out the elements of the AIP's monetary and fiscal policy, and prices and incomes controls. He then compares the program's inflation objectives with the actual course of inflation and aggregate demand during, and immediately after, the AIP. Drawing on existing analyses of the program's monetary and fiscal policy and controls elements, the author discusses why the program's specific targets and general objectives were not met. He concludes, with the benefit of hindsight, that—while external factors contributed to the failure to meet objectives—monetary and fiscal policy were not such as to give the AIP a strong chance of fully succeeding. The program's controls element has generally been assessed more favourably, although certain specifics of the controls design can be questioned. The author briefly considers parallels with recent retrospective considerations of monetary and fiscal policy over the same period in the United States. He also attempts to draw some general lessons from the AIP experience and, more generally, from the 1970s experience. Given that the AIP was an early attempt at a form of inflation targeting, these include lessons that may be relevant to current policy with respect to inflation.

JEL classification: E31, E52, E63, E64, E65
Bank classification: Credibility; Fiscal policy; Inflation and prices; Inflation targets; Monetary policy framework; Monetary policy implementation

Résumé

L'auteur présente une vue d'ensemble du Programme de lutte contre l'inflation appliqué de 1975 à 1978, dans un document d'information destiné aux participants à un séminaire organisé par la Banque du Canada à l'occasion du 30^{e} anniversaire du Programme. Après avoir rappelé les conditions d'inflation qui prévalaient au Canada dans la décennie ayant précédé l'instauration du Programme et les politiques suivies alors pour y réagir, l'auteur expose les différents éléments du Programme, soit son volet monétaire et budgétaire ainsi que les mesures de contrôle des prix et des salaires. Il compare ensuite les objectifs du Programme liés à l'inflation avec la trajectoire réelle de cette dernière et de la demande globale pendant la durée du Programme et juste après. En s'appuyant sur les analyses existantes au sujet des politiques monétaire et budgétaire ainsi que des mesures de contrôle prévues par le Programme, l'auteur discute des raisons pour lesquelles les

objectifs spécifiques et généraux de celui-ci n'ont pas été atteints. Il conclut, avec l'avantage du recul, que, sans nier l'influence des facteurs extérieurs, la composante monétaire et budgétaire du Programme n'était pas de nature à en assurer la pleine réussite. Les mesures restrictives ont été en général évaluées favorablement, bien que certains aspects de celles-ci puissent être mis en cause. L'auteur établit ensuite quelques comparaisons avec les résultats des analyses rétrospectives réalisées récemment à l'égard de la politique monétaire et budgétaire pratiquée par les États-Unis durant la même période. Il tente aussi de tirer des leçons générales de l'expérience du Programme et, plus globalement, de la situation vécue au cours des années 1970. Comme le Programme constituait une première tentative de mettre en place un régime de cibles d'inflation, certains de ces enseignements pourraient être intéressants au regard de la politique actuelle de maîtrise de l'inflation.

Classification JEL : E31, E52, E63, E64, E65
Classification de la Banque : Crédibilité; Politique budgétaire; Inflation et prix; Cibles en matière d'inflation; Cadre de la politique monétaire; Mise en œuvre de la politique monétaire

I. Introduction

Inflation in Canada increased gradually from very low levels (below 2 per cent) in the early 1960s to above 4 per cent by the late 1960s. A dip in price inflation, and a smaller dip in wage inflation, then occurred. But by mid-1973, prior to the first oil shock, price inflation was above 5 per cent and rates of wage increase in new major collective agreements were above 10 per cent. Price inflation was above 10 per cent in 1974 and 1975, and new collective agreement settlements were in the 20 per cent range from the fourth quarter of 1974 through the third quarter of 1975. While the United States and most other OECD countries experienced rather similar increases in inflation through 1974, Canadian price inflation, and especially wage inflation, exceeded inflation in the United States by a substantial margin in 1975.

In October 1975, the Government of Canada announced an anti-inflation program (AIP), key elements of which were "fiscal and monetary policies aimed at increasing total demand and production at rates consistent with declining inflation" and a three-year program of controls over prices and incomes with broad coverage (Canada. Minister of Finance 1975b). The targets for price inflation for the program's first, second, and third years could be inferred to be 8, 6, and 4 per cent. These were the values of the "basic protection factors" used in calculating the compensation guidelines for the first, second, and third years of the program; I will refer to them as the AIP's 'implicit inflation targets.'

Inflation, especially wage inflation, slowed substantially following the introduction of the AIP, but the second- and third-year implicit price-inflation targets were not met and inflation resumed an upward trend after 1978. By 1980 and 1981, price inflation was back above 10 per cent; wage settlements, while not back to the peak of 1975, were in the 11–13 per cent range. Monetary policy was tightened sharply in the latter half of 1979 and in 1980. With the severe recession from the latter part of 1981 through 1982, and very high unemployment from 1982 through the mid-1980s, price and wage inflation

dropped very sharply. Price inflation fell below 5 per cent by 1984 and stayed there for several years.

The above summary chronology invites a number of questions, which provide the basis for much of this paper:

- Why did inflation increase so much over the period from the early 1960s to 1975? Why were monetary and fiscal policy not more successful in resisting the increase? Why did inflation stay high in Canada in 1975 when it was starting to decline in the United States and certain other countries?

- What motivated the choice of the broad features of the 1975 AIP? Why did the progam not succeed in fully achieving its price inflation objectives, and why did inflation increase again after 1978?

These issues have been well addressed by a number of analyses and commentaries, contained both in official reports and academic research, in the 1980s and subsequently. This paper draws heavily on several of these analyses.[1] The paper's primary focus is the Anti-Inflation Program of 1975–78, particularly its elements of demand management and prices and incomes controls. But to set the context for the decision to introduce the AIP, the paper first provides (section II) a brief review of key economic developments, and policy debates and decisions, from the late 1960s to 1975. Several excerpts from budget speeches are included in an attempt to portray the flavour of policy discussion in that period. Turning to the 1975 AIP, section III describes the elements of the program and their implementation, reviews the course of inflation and the economy during and immediately after the program, and discusses why the program's specific targets and

[1] The paper draws particularly heavily on the comprehensive reviews of the course of the economy, of policy, and of the evolution of economic thinking from the 1960s through the early 1980s provided in the Report of the Royal Commission on the Economic Union and Development Prospects for Canada (Canada. RCEUDPC 1985, 267–375), and the more extended discussion in Riddell (1986). The paper also draws on the more detailed chronology and discussion of fiscal policy provided by Purvis and Smith (1986), and of monetary policy provided by Sparks (1986) and Courchene (1976, 1981). Another primary resource is the Anti-Inflation Board's detailed review of the price and wage controls element of the 1975 AIP, and its more general discussion of economic and policy developments (Canada. Anti-Inflation Board 1979a). Contemporary annual reports by the Bank of Canada (1980, 1981, 1982, and 1983) also contain valuable general discussions of the experience of the 1970s.

general objective were not met. Section IV concludes with a brief attempt to draw some general lessons from the AIP experience and, more generally, from the 1970s experience.

The AIP can be viewed as an early attempt at a form of inflation targeting, both in terms of its specific implicit price targets and its objective that monetary and fiscal policy would promote growth of total demand consistent with declining inflation. These features were intended, among other things, to help achieve a steady reduction in inflationary expectations and ultimately to help anchor inflationary expectations at a low level. In reviewing the AIP, there is particular interest in gleaning lessons for the current approach to inflation targeting. Such lessons might be found in aspects of the AIP that proved to be inadequate; they might also be found in special conditions—such as supply shocks—that posed particular challenges for the AIP and might pose somewhat parallel challenges under the current approach.

II. Context—The Lead-up to the High Inflation of the Mid-1970s

A. A brief chronology

As noted in the introduction, inflation rose from the very low levels of the early 1960s to above 4 per cent by the late 1960s—a level that caused concern at the time. In its review of this period, the RCEUDPC (Canada. RCEUDPC 1985, 304) stated that:

> In 1968, the government in a White Paper entitled *Policies for Price Stability*, stated, "It is becoming increasingly evident that, with the existing tools of economic policy, we cannot count on simultaneously maintaining the desirable level of employment and reasonable price stability." Stressing a determination to avoid inflation "without awaiting the harsh remedies which economic forces, given time, will otherwise administer", the White Paper specified some of the policy problems involved in controlling inflationary demand pressures:
>
> - Lags in the impact of policy actions, coupled with the speed with which unforeseen demand pressures sometimes arise
>
> - Uncertainty about the precise upper limits at which the economy can be permitted to operate relative to its capacity, before serious demand pressures and inflationary price increases develop

- Bottlenecks in particular sectors arising before high employment is attained generally and thus generating inflationary pressures.

> . . . the government's response to inflation . . . involved restraint in its spending on goods and services, coupled with tax increases, to achieve reduced deficits (or increased surpluses) . . . and the creation of the Prices and Incomes Commission to 'inquire into and report upon the causes, processes and consequences of inflation and to inform those making current prices and incomes decisions, the general public and the Government on how price stability may best be achieved.'

Real growth in the economy did slow, presumably in response to relatively tight fiscal policy from 1967 through 1970, and in response to monetary restraint, reflected in the appreciation of the Canadian dollar after it was allowed to float in 1970. Price inflation declined somewhat but, as noted, the decline in rates of increase in wage settlements was very modest, despite the fact that the unemployment rate increased from below 4 per cent to about 6 per cent in 1970 and 1971. Unemployment at or above 6 per cent was generally regarded as rather high, and the experience of 1967–71 was interpreted by many as indicating that demand restraint was relatively ineffective in restraining inflation and involved rather high costs in terms of reduced output and employment.

From 1971 through 1973, fiscal and monetary policy were expansionary. Budget speeches, while expressing concern about inflation, gave clear priority to reducing unemployment: "The purpose of this budget is—first and foremost—to bring about a substantial reduction in unemployment" (Canada. Minister of Finance 1973, 1). To the extent that the budget addressed inflation, it did so through the use of supply-side measures (e.g., providing stimulus through tax reductions, including price-reducing excise and sales tax cuts and tariff reductions in the 1973 budget), and through appeals for moderation in wage and price behaviour. The indexation of Old Age Security benefits in the 1972 budget, and of the tax exemption levels and rate brackets in the 1973 budget, could be viewed as indicating a willingness to live with the 4 to 5 per cent inflation expected at the time.

The Prices and Incomes Commission presented its report in 1972. As noted by the RCEUDPC (Canada. RCEUDPC 1985, 305), the report stated that it

> . . . attributed the increase of inflation in the mid-1960s largely to excess demand;
> . . . the persistence of inflation after the clear emergence of economic slack in 1970

> . . . resulted both from lags in adjusting inflation expectations to match slower economic growth and from strongly held inflationary expectations. [It estimated] that the unemployment rate reached a "danger point" of inflationary pressure when it fell below 4.5 to 5 per cent. . . . It regarded demand management policy as the key to countering inflation; however, it also considered that adoption of a temporary incomes policy could provide a useful reinforcement to demand management in "trying to extricate the economy from a major inflationary outbreak originally generated by an overshoot of demand but persisting stubbornly because of widely held inflationary expectations and response lags."

Rapid growth in domestic and international demand, coupled with surges in domestic and international food prices and the first oil shock in the fall of 1973, pushed price and wage inflation higher in 1973, with further escalation in 1974.

The May 1974 budget (Canada. Minister of Finance 1974a, 1) stated that "we are confronted by the scourge of inflation, world-wide in its origins and impact. No other issue more deeply disturbs our country, this government or me, as Minister of Finance." No further fiscal stimulus was provided. The budget discussed but rejected two alternative policy approaches that the government had considered:

> One is the deflation of demand by severe measures of fiscal and monetary restraint. The effect of this would be stagnation and rising unemployment. In my judgment, such a cure would be worse than the disease.
>
> The second approach, urged upon us by the official Opposition, is to impose a general system of price and wage controls. This would be totally ineffective in overcoming the kind of inflationary problem we have been and are still facing. (p. 6)

The Minister also stated:

> I agree with the Governor of the Bank of Canada that the rate of monetary expansion should now be moderated to the pace just sufficient to sustain continuing growth at the levels of our physical capacity. Rates of interest are painfully high, but the way to bring them down is to slow the rate of inflation. (p. 7)

Inflation continued to increase over the remainder of 1974, but the economy also went into recession following a general international slump. The November 1974 budget

(Canada. Minister of Finance 1974b) included some measures to sustain aggregate demand, while observing that "our economy now seems to reach a condition of widespread scarcity and strain in labour markets at somewhat higher unemployment levels than in earlier postwar cycles. The explanation would appear to lie in changes in the composition of the labour force, together with changes in our social policies" (p. 6). The budget announced "a comprehensive series of consultations with all sectors of the economy to seek to develop a co-operative national effort to slow down increases in costs and prices" (p. 9). By May 1975, this consultative effort to achieve a voluntary incomes policy was acknowledged to have failed. Among the issues that prevented a consensus from being reached was the government's refusal (Canada. Anti-Inflation Board 1979a, 26) to agree to the Canadian Labour Congress' conditions for supporting a restraint program: "measures to improve the housing supply, tight control of rents, regulation of oil and gas prices, a negative income tax for wage earners earning less than the [average wage], explicit measures to reduce unemployment, tight controls over professional fees, and restraints on mortgage and consumer interest rates."

Against the background of continuing very high inflation, of unemployment that had risen to about 7 per cent, and of the failure to obtain a consensus for voluntary adherence to price and wage guidelines, the June 1975 budget (Canada. Minister of Finance 1975a) observed that "the faster rise in costs in this country than in the United States is casting a shadow over our economic future." While not providing any further general stimulus, it rejected

> . . . again, and in the most categorical manner . . . the policy of deliberately creating, by severe measures of fiscal and monetary restraint, whatever level of unemployment is required to bring inflation to an abrupt halt. . . . The cost would be much too high. In human terms for me it would be unthinkable. (p.11)
>
> [In the current] circumstances . . . of escalating domestic costs in an under-employed economy . . . controls could provide the most direct response to the problem.
>
> [The costs of controls] would be worth paying if direct controls could be successfully imposed. If this were the case, we might well achieve lower price and cost increases without higher unemployment. But the success of such a program

would depend crucially on widespread public support. . . . I believe that we can resort to direct controls only when there is a public conviction of the need for such action. That point has not been reached. (p. 12)

B. Factors contributing to the failure to contain inflation

Turning to a brief assessment of policy during the period through June 1975, with the benefit of hindsight, monetary and fiscal policy are generally viewed as having been excessively expansionary—in Canada and most other developed market economies[2]—from 1971 to 1973. The combination of continued rather expansionary policy after 1973 in Canada, and the fact that Canada—as an oil producer—was not as adversely affected by the first oil shock as most other industrialized countries (and was not under as much pressure to take restrictive demand management policy measures), explains both the fact that the 1974–75 recession was much less severe in Canada and that inflation stayed higher.

A number of factors likely contributed to decisions to pursue as expansionary a policy stance as was followed over the first half of the 1970s.

a. Misreading the significance of the unemployment rate, and the lag in recognizing the decline in productivity growth

The perception that there was room to reduce unemployment by expanding demand in 1971, and especially in 1972 and 1973—which was based in considerable part on a comparison of unemployment rates in those years with unemployment experience in the 1960s—now appears to reflect a misreading of the significance of those unemployment

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[2] In fact, excessively expansionary monetary and fiscal policy in the United States, starting in the mid-1960s and continuing into the early 1970s, is generally regarded as a major cause of the rise in international inflation over this period. Laidler, writing in 1984/85, observed:

> By 1966, the Johnson administration was firmly committed to its "war on poverty" and the Vietnam War had reached serious proportions. What had initially been a modest relaxation of the stance of U.S. monetary policy developed into a steady increase of the U.S. rate of monetary expansion as the decade progressed. One suspects that this increase was not of conscious design, but a by-product of the fiscal pressures implicit in the administration's decision to fight both its wars without significant tax increases. This monetary expansion ultimately undermined the Bretton Woods system but not before setting in motion the worldwide inflation from which the Western world has yet to recover. (Laidler 1986, 246)

rates as indicators of labour market tightness. The changing age-sex composition of the labour force and of unemployment, which was occurring over the late 1960s and 1970s, tended to increase the unemployment rate corresponding to a given degree of tightness; the major changes in the Unemployment Insurance system in 1971/72 are now seen as having significantly further increased the unemployment rate. The first factor has been estimated to have added about one percentage point to the average rate of unemployment, and the unemployment insurance changes are estimated to have increased unemployment by one to two percentage points (Canada. RCEUDPC 1985, 595; Riddell 1986, 16). While budget speeches, Bank of Canada annual reports, and some academic studies raised the possibility of a change in the significance of the unemployment rate as early as 1973 (see, for example, the reference in Courchene 1976, 181), it took several years before policy advisers and public discussion made adequate allowance for these changes.

Also tending to mislead judgments as to how close the economy was to capacity in the latter part of this period was the slowing in the rate of underlying productivity growth. The resulting reduction in the rate of growth of potential output, which is now generally considered to have occurred after 1973, was difficult to identify with any certainty at the time. (See further discussion of the slowing in productivity growth on pp. 25–26 below.)

b. 'Supply shocks' affecting food and oil prices

The special shocks to food and oil prices in 1972 through 1974 further complicated demand management policy. (Table 1, p. 19, lists measures of price inflation excluding food and energy prices.) There was some reason to hope that the direct impact of these special factors on the recorded rate of inflation might be 'one-time' in nature, and that inflation would then recede to its 'underlying' level which—at least for a while—could be argued to be in the 4–5 per cent range. But this hope would depend on longer-run expectations that inflation would not be much influenced by the food and oil-price shocks.

c. Evolving understanding of the fundamental relation between inflation and unemployment

The first half of the 1970s was also a period in which there was a major evolution in economists' thinking about the fundamental relation between inflation and unemployment. The notion of a trade-off between unemployment and inflation (the 'Phillips curve') had been fairly widely accepted among policy analysts and in public discussion in the 1960s and into the early 1970s, but it was increasingly seen as having given inadequate attention to the influence of expected inflation on the actual course of inflation.[3]

Influential academic articles by Friedman (1968) and Phelps (1967, 1968) argued that, in any given labour market framework, there would, in principle, be a particular, pivotal unemployment rate corresponding to a "non-accelerating inflation rate of unemployment (NAIRU)" or "natural rate of unemployment." Below this rate, inflation would tend to increase, and above it inflation would tend to decline, *relative to its then prevailing (or its expected) level*. Operation of the economy below this unemployment rate would lead initially to some increase in inflation, but this in turn would be reflected in a new, higher prevailing level of actual and expected inflation. If unemployment continued to be maintained below the critical level, there would be an increase in inflation relative to the new higher level, and so on, in an indefinite upward spiral. This 'inflation-expectations augmented Phillips curve' view suggests that, in the longer run, there is no trade-off between inflation and unemployment; unemployment rates below (or above) the NAIRU could not be sustained indefinitely. There is still a trade-off in the shorter run, but it now is seen as involving trading periods of temporarily below-NAIRU or above-NAIRU unemployment for shifts up or down in the ongoing rate of inflation.[4] This contrasts with the earlier notion that held out the possibility that one might gain

[3] For a nuanced discussion of the origins of the trade-off notion, which references academic research and policy discussion in the United Kingdom, the United States, and Canada, see Laidler (1994).

[4] Even such a short-term trade-off might be in doubt if expansionary aggregate demand policy led to rapid upward adjustment in the expected rate of inflation.

permanently lower average unemployment in exchange for a limited increase in the ongoing rate of inflation.

The theoretical case for 'no longer-run trade-off' gained empirical support, and increasing acceptance, in the United States, Canada, and elsewhere as the 1970s progressed. This new notion, together with recognition of a role for supply price shocks, provides a more satisfactory framework for viewing the experience of the 1970s and beyond. However, empirical values for its two key concepts—the NAIRU and expected inflation—are not directly observable; they can only be estimated and are subject to a range of uncertainty.

The changing significance of the unemployment rate, and the special influence of price shocks, complicated efforts to infer a reasonable range for the level of the NAIRU. In early 1975, with an unemployment rate of about 6.5 per cent, economic conditions were widely regarded as involving sufficient slack to put some downward pressure on inflation. (See, for example, Bank of Canada. *Annual Report* 1974, p. 5.) But subsequent work suggests that the NAIRU was likely at least 6.5 per cent and quite possibly as high as 8 per cent from 1972 or 1973 until the early 1980s (Canada. RCEUDPC 1985, 595). This suggests that, in fact, labour market conditions in early 1975 would have, at best, had a neutral impact on inflation, and might well have exerted some modest further upward pressure on inflation.

Had the new view prevailed in the early 1970s, policy-makers might well have been more cautious in expanding aggregate demand, given the risk of continuing inflationary problems if it turned out that unemployment were pushed below the NAIRU.

d. The role of the money supply

Money supply growth was not the focus of the Bank of Canada's attention in the early 1970s. As columns (1) and (2) in Table 3 show, the two measures of the money supply that received most attention at the time—M1 and M2—grew at rates well in excess of

10 per cent from 1971 through 1975 (with the exception of M1 in 1974, which grew by 9.3 per cent). Initially, the money supply was allowed to grow rapidly at least in part in an attempt to lessen appreciation of the Canadian dollar; this in turn was presumably influenced by the judgment that it was inappropriate to dampen the prospects for output and employment growth through further exchange rate appreciation, given the view at the time that reduction in unemployment could safely be pursued. While interpretation of money-supply figures has been subject to its own problems and uncertainties, by 1974 or 1975 the Bank of Canada was convinced that such high growth rates created dangers of future inflation. In his October 2000 lecture, Governor Thiessen (2000–2001, 41–42) concluded that, among the lessons learned from this period was that "money mattered and was the ultimate source of sustained inflation. Excessive government spending and other positive demand shocks could not generate ongoing inflation unless monetary policy was prepared to validate it."

C. 1970–75: summing up

With the evolving understanding of the role of expectations in inflation, the shifting significance of traditional indicators of demand pressure, and the compounding factors of unstable international monetary conditions and major supply shocks, Canadian monetary and fiscal policy in the first half of the 1970s faced very difficult challenges. All the industrialized countries experienced at least some increase in inflation in 1973 and 1974, although in Germany and Switzerland—which had allowed substantial appreciations of their exchange rates—the increases in inflation were modest. As well, in Germany, Switzerland, and the United States inflation was clearly falling by 1975.

With the benefit of hindsight, it appears that fiscal and monetary policy in Canada contributed to the extent of the rise of inflation and to the entrenchment of inflationary expectations; in other words, fiscal and monetary policy contributed to the problems that led to the 1975 AIP. More resolute non-inflationary fiscal and monetary policy could have been expected to result in somewhat weaker economic and employment growth over the first half of the 1970s, probably especially in 1974 and 1975. But less inflationary policies

would have stored up an appreciably smaller inflation problem for the future, the unwinding of which would involve its own costs in terms of growth and employment.

III. The Anti-Inflation Program of 1975–78

As noted, the June 1975 federal budget had concluded that there was not sufficient public support to make a program of wage and price controls a viable component of anti-inflation policy. In the following months, very high rates of wage settlements continued in Canada, while wage increases in the United States were clearly declining. In October 1975, the government, with the Honourable Donald Macdonald as the new Minister of Finance following the resignation of the Honourable John Turner, concluded that a stronger approach to inflation, including a temporary system of controls over prices and incomes, was required. The new Minister of Finance stated that "strong public support so crucial to the success of such a national program now exists for the first time in Canada" (Canada. House of Commons Debates 1975, 8191). At around the same time, the Bank of Canada had concluded that monetary policy should be guided by targets for money supply growth that would be consistent with gradual reductions in inflation.

A *gradual* approach to reducing inflation, involving implicit targets for annual rates of price inflation of 8, 6, and 4 per cent for the first, second, and third years of the AIP, was a central feature of the program. It was hoped that gradualism would permit inflation to be reduced while avoiding a severe recession. Further, gradualism was more consistent with the approach of not abrogating existing wage (and other) contracts that provided for future year increases than an approach that would have attempted to reduce current inflation much more rapidly.

A. The AIP—description

The program, set out in the 14 October 1975 white paper, *Attack on Inflation: a program of national action,* had four main elements (Canada. Minister of Finance 1975b, 3 and 8):

1. "*Fiscal and monetary policies* aimed at increasing total demand and production at a rate consistent with declining inflation."

2. "*Government expenditure policies* aimed at limiting the growth of public expenditures [such that the "trend in spending . . . should not rise more quickly than the trend of the gross national product"] and the rate of increase in public service employment."
3. "*Structural policies* to deal with the special problems of energy, food and housing, to ensure a more efficient and competitive economy and to improve labour-management relations."
4. "*A prices and incomes policy* which establishes guidelines for responsible social behaviour in determining prices and incomes of groups, together with machinery for administering these guidelines and ensuring compliance when necessary."

The elements of the program that this paper will concentrate on are the fiscal and monetary policy, and prices and incomes policy ('controls'). I will first set out the specifics of these elements, and then review their implementation and attempt an assessment of the results.

a. Fiscal and monetary policy—goals and approach

"[K]eeping the over-all level of demand in the economy growing at a pace consistent with successively lower rates of price increase" was recognized as crucial to the success of the program and as "the central task of fiscal and monetary policy." While continuing to reject severe monetary and fiscal restraint, the *Attack on Inflation* white paper also "reject[ed] the notion that the guidelines will allow fiscal and monetary policy to be directed solely at the unemployment aspect of the current problem." The document asserted that the fiscal stance in the then most recent (June 1975) budget, coupled with the "announced intention of the Bank of Canada to allow the money supply to expand at a rate consistent with moderate real growth and a decline in the rate of inflation," constituted a demand management policy consistent with this broad objective (Canada. Minister of Finance 1975b, 4).

In November 1975, the Governor of the Bank of Canada announced the specific initial targets for money supply growth: annual growth rates for the narrow measure of the money supply (M1) within the 10–15 per cent range (preferably towards the lower end of the range) for the first year, declining thereafter to approach the rate consistent with long-

run price stability.[5] The target growth rate ranges were subsequently lowered to 8–12 per cent in May 1976, 7–11 per cent in October 1977, 6–10 per cent in September 1978, 5–9 per cent in December 1979, and 4–8 per cent in February 1981.

b. Controls over prices and incomes—goals and approach[6]

While the government had earlier rejected the use of prices and incomes controls, it had done substantial preparatory work on such an approach. The Prices and Incomes Commission had prepared a set of contingency plans for controls in 1972. A small Prices Group in the Department of Consumer and Corporate Affairs had continued to develop these plans after the Commission wound up. The consultations exercise of January–May 1975, in which the Department of Finance was heavily involved, had discussed in some detail an approach to wage and price restraint that had a major influence on the design of the controls approach introduced in October (Canada. Anti-Inflation Board 1979a, 16–29).[7] In addition, the government could draw on the U.S. and U.K. experience with mandatory price and wage controls in the early 1970s, although this experience was generally not viewed as very encouraging. The monetary and fiscal policies with which the U.S. and U.K. controls had been accompanied had not supported a reduction in inflation (Riddell 1986, 75–78).

The central features of the AIP's controls element were:

- Guidelines for increases in total wage and salary compensation, for prices and profits, and for dividends, which all Canadians were asked to follow. The guidelines constituted legally enforceable ceilings for compensation and pricing of: firms with more than 500 employees; firms whose employees bargained in

[5] The U.S. Federal Reserve System and the German Bundesbank had adopted versions of monetary targeting shortly before the Bank of Canada did (Thiessen 2000–2001, 42).

[6] The Anti-Inflation Board (Canada. Anti-Inflation Board 1979a) has provided very useful discussions of general issues faced in designing the prices and incomes policy element of the AIP (pp. 32–35), of the specifics of the compensation controls and the experience with their application (pp. 41–70), and of the evolving specifics of the price (profit margin) controls and the experience with their application (pp. 71–124).

[7] The negotiations stages of these consultations with provincial governments, business, and labour were held in private, but the options put forward by the federal government were tabled in the House of Commons on 8 May 1975 (Canada. Anti-Inflation Board 1979a, 23–27).

association with employees of other firms; firms in the construction industry with more than 20 employees; the federal government and all its emanations; participating provincial governments and their emanations, including municipal institutions; employees of all the above entities; and self-employed or incorporated professionals.

All provinces co-operated through one means or another, such that all provincial employees were subject to the compensation guidelines in the federal plan, or to very similar guidelines during the initial stages of the AIP.[8] Some provinces did, however, withdraw the application of the plan to their employees before the general decontrol date.

- The controls were administered in major part by the Anti-Inflation Board (AIB), a new temporary agency with significant independence, that was given the authority to require reporting by those subject to the program, and significant discretion in interpreting aspects of the guidelines. Its central role was to encourage compliance with the guidelines.

  Where the AIB determined that the guidelines had likely been contravened, it could refer the case to a separate official, the Administrator, who would investigate and, on a finding that the guidelines had been contravened without good reason, could order the entity to comply from that point on and to make various forms of restitution in respect of contraventions up to that point.[9] The Administrator's decisions could be appealed to an Appeal Tribunal and, in turn, to the Federal Court of Appeal.

- The derivation of the guidelines for compensation (wages plus benefits) increases started from the "basic protection factors," which may be taken to be the program's implicit price inflation targets.[10] The values for these factors were set at annual increases of 8, 6, and 4 per cent for the first, second, and third 'guideline years'

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[8] Eight provinces entered into agreements provided for in subsection 4(3) of the Anti-Inflation Act, under which the province permitted the federal legislation to apply to the provincial public sector. Quebec entered into an agreement provided for in subsection 4(4), under which it applied a comparable program to its public sector. Saskatchewan applied a rather similar program to its public sector (Canada. Anti-Inflation Board 1979a, 41–42).

[9] Because the Administrator was given less discretionary power under the Act in applying the guidelines than was the AIB, and because—as experience with the application of the system was gained—it turned out that the Administrator in some cases reduced the increases that the AIB had been prepared to accept, parties had an incentive to comply voluntarily with AIB recommendations. (See Canada. Anti-Inflation Board 1979a, 60.)

[10] I do not recall, and have not been able to discover from published sources, whether consideration was given at the time to adopting the 8, 6, and 4 per cent rates of price increase as explicit, official inflation targets for the AIP (in addition to using these figures as the basis for developing the compensation guidelines). Arguably, adopting them as official inflation targets might have had a greater impact on inflation expectations, at least in part because it would have imposed a tighter constraint on monetary and fiscal policy.

covered by the program. If actual inflation turned out to be higher for a particular year, the excess would be built into the compensation guideline for the subsequent year. The overall compensation guideline for a given year consisted of this basic protection factor, plus a 2 per cent "share in increases in national productivity," plus an adjustment of up to +2 per cent or down to -2 per cent based on whether the average annual increase for the group in question over the preceding two years—or over the life of its terminating contract if greater than two years—fell short of or exceeded the average annual increase in the CPI +2 per cent over the same period.

These guidelines for percentage increases were qualified by minimum and maximum dollar amount increases of $600 and $2,400, respectively. Further, the AIB was empowered to provide exceptional treatment under certain circumstances, including cases where contracts, signed prior to the beginning of 1974, had expired before the introduction of the program and negotiations were under way, or where an employee group's wage rates had a long-established historical relationship with wage rates of a closely related group.

In October 1977, by which time it was clear that actual inflation would generally exceed 6 per cent for the second guideline years (it had been below 8 per cent for the first guideline years), the provision that would have called for adjustment of the third-year basic protection factor was dropped.

- The initial intent was to control most covered prices by requiring that firms that could allocate costs to individual products should not increase prices by more than increases in costs ('unit-cost' approach). A firm that could not allocate costs to individual products was to be constrained to price in such a way as to leave its percentage pre-tax net profit margin no higher than 95 per cent of its average percentage margin in the most recent five completed fiscal years ('net margin' approach). The two approaches were expected to have roughly the same impact on profits and average prices[11] (Canada. Anti-Inflation Board 1979a, 72).

  After substantial consultation over the first 10 months of the program, and largely for reasons of administrative practicality, use of the unit-cost approach was dropped. The pricing/profit guidelines were modified to allow choice among two base periods for application of the net margin approach, while the general allowable margin was reduced to 85 per cent of the average for the chosen base period. (The reduction in the percentage was intended to offset, on average, the impact of offering the choice of base periods.) Similar rules were applied to the distribution sector and to financial intermediaries.

  While the margin rule became the general regime, the AIB retained the ability to restrain "clearly disproportionate" price increases on individual products.

  All firms were allowed to earn a minimum of 8 per cent before tax on their equity as relief from low or falling margins in their base periods.

[11] The first approach, by permitting only the preservation of absolute profits per unit of output, would tend to reduce percentage margins slightly in a period of rising costs. The second approach explicitly limited percentage margins to 95 per cent of the base-period average.

- Professional fees were subject to a regime comparable to the compensation guidelines supplemented with provision for pass-through of increases in costs.

  Dividends, with some exceptions, could not be increased during the first program year. They could be increased by up to 8 per cent in the second program year and by up to 6 per cent in the third program year. Provincial governments were asked to undertake responsibility for implementing a program of rent control based upon a number of principles intended to ensure an adequate incentive for new rental construction.

- Prices received by farmers and fishers for their products were exempt from the controls. Marketing boards were asked to follow the guidelines. Export prices were not controlled (firms were expected to sell at the international price), but exporting firms were obliged to ensure that the domestic market was fully satisfied at a price consistent with the general guidelines. In certain circumstances, exporting firms were allowed to apply international prices to their domestic sales; it was originally intended that a special levy would apply in such cases to reduce profit margins to the generally allowable levels, but this was later dropped (Canada. Anti-Inflation Board 1979a, 89–90).

- The Anti-Inflation Act (C-73, 1975), which provided authority for the government to issue legally enforceable price, profit margin, and compensation guidelines under regulation, and which created the administrative machinery, had an expiration date of 31 December 1978. After consultations following the release of *Agenda for Co-operation: A Discussion Paper on Decontrol and Post-Control Issues* in May 1977, the Minister of Finance announced on 20 October 1977 that the phasing out of the controls would commence effective 14 April 1978. Compensation for guideline years starting after the latter date was not subject to controls. There were special provisions for guideline years that started in 1978 but prior to 14 April, and for businesses that had fiscal years starting in 1978, which ensured that there was full decontrol by the end of 1978 (Canada. Anti-Inflation Board 1979a, 166–71).

B. The AIP—the outcome

Rates of compensation increase in new settlements fell immediately upon the introduction of the AIP. While much lower than in the immediate pre-control period, rates of compensation increase in the first three quarters of the program were still appreciably above the 'standard' guidelines (i.e., before allowing for the experience adjustment, or historical relationship, factors). From that point on, until the termination of the

compensation controls program, rates of compensation increase fell to levels only modestly above the standard guidelines.[12]

The rate of increase of the total consumer price index (CPI), some of the components of which were not controlled and most components of which included at least some inputs not subject to controls, fell from 10.8 per cent for 1975 to 7.5 per cent for 1976. This was below the 8 per cent implicit target for the first year of the AIP, but the extent of the fall in the rate of increase was heavily influenced by the very low rate of increase (2.4 per cent) in largely uncontrolled food prices. The rates of increase for 1977 and 1978 were 8.0 and 9.0 per cent, respectively, well above the implicit targets of 6 and 4 per cent.[13]

Table 1 shows rates of increase for the CPI and for versions of the CPI excluding food, and excluding food and one measure of energy products and services. While these subaggregates should be subject to more influence from the controls program, they are still subject to the influence of uncontrolled import prices. Also shown are rates of wage increase provided in new non-COLA settlements, rates of increase in base wage rates in all major collective agreements in force, rates of increase in the latter measure of wages expressed in real (CPI-adjusted) terms, and—a measure of labour costs—rates of increase in compensation per unit of output in the business non-agricultural sector. As an indicator of import costs, Table 1 includes rates of increase of the GDP implicit deflator for imports of goods and services. The relatively high rates of increase of import prices in

[12] More specifically, the average rate of increase provided in the first year of new settlements reached in 1976Q3 through 1978Q1 was never more than 1.5 percentage points in excess of the standard guidelines of 10 per cent for new non-cost-of-living-agreement (COLA) settlements from 1975Q4 through 1976Q3, 8 per cent from 1976Q4 through 1977Q3, and 6 per cent from 1977Q4 through 1978Q1 (Canada. Department of Labour 1978 through 1980). A tabulation by the AIB, in which I understand that 'guidelines' refers to the calculations with the experience adjustment factor but without the historical relationship factor, shows that, excluding settlements relating to 'pre-program years' (i.e., under contracts that had expired and were under negotiation when the AIP was introduced), the average effective rates of increase across the public and private sectors were within a few tenths of a percentage point of the guidelines (AIB 1979b, 35–50).

[13] Annual rates for 1976, 1977, and 1978 do not represent an ideal match to the time periods that the first, second, and third years of the program might have been expected to affect. Given the lags in the impact of the program, a case could be made for comparing the results for the average of 1976 and 1977 with the target for the first program year, and so forth. Nevertheless, it is believed that the annual rates in the text and Table 1 provide a reasonable, if approximate, reading on the extent to which the implicit price targets were met, especially when a span of years is considered.

Table 1. Measures of Price Inflation and Related Indicators
(Annual rates of change (%))

Year	CPI and subaggregates			Wages and labour costs				Import costs
	CPI	CPI less food	CPI less food and energy	New settle-ments	Agrmt in force	Col. (5) real	Lbr. comp. /output	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1970	3.3	3.9	-	8.7	8.5	5.0	5.6	2.5
1971	2.9	3.4	-	7.9	7.8	4.8	3.6	2.2
1972	4.8	3.7	3.9	8.8	7.4	2.5	4.3	2.5
1973	7.5	5.1	4.6	11.0	8.3	0.7	6.6	7.2
1974	10.9	8.8	8.3	14.7	12.3	1.3	14.4	20.0
1975	10.8	10.0	9.6	19.2	14.2	3.1	15.1	14.6
1976	7.5	9.4	8.8	10.9	14.3	6.3	8.2	0.7
1977	8.0	7.8	7.3	7.9	11.2	3.0	7.2	11.3
1978	9.0	6.4	6.1	7.1	6.8	-2.0	5.1	8.9
1979	9.1	7.9	7.6	8.8	7.8	-1.2	7.9	9.6
1980	10.1	10.0	9.4	11.1	9.7	-0.4	11.5	6.6
1981	12.5	12.8	10.9	13.3	11.5	-0.9	10.4	4.7
1982	10.8	11.8	10.7	10.0	-	-	11.6	4.7
1983	5.8	6.4	6.3	5.6	-	-	0.4	-0.3

Sources: Cols. (1) through (4): Riddell (1986, 12–13)
Column (4) refers to compound average annual rates of increase in the base wage rate over the life of the contract in major collective agreements, excluding construction. Contracts containing cost-of-living adjustment clauses are excluded.
Col. (5): Riddell (1986, 41). Refers to base rates in all major agreements in force.
Col. (6): Column (5) adjusted for increase in total CPI: a measure of the change in real wages.
Col. (6): Canada. Department of Finance (1994, 74). Labour compensation per unit of output in the business sector non-agricultural industries.
Col. (7): Canada. Department of Finance (1994, 87). Refers to GDP implicit price deflator for imports of goods and services.

1977 and 1978 were significantly influenced by the depreciation of the exchange rate by 7.9 and 9.3 per cent in those two years (after an appreciation of 4.5 per cent in 1976).[14]

As Table 1 shows, the rates of increase in the 'ex food' and 'ex food and energy' CPI measures for 1977 and 1978 were somewhat closer to the implicit targets for the second and third years of the AIP, but even the 6.1 per cent increase in the CPI ex food and energy in 1978 exceeded the third-year AIP target by a substantial margin of 2.1 percentage points. The 5.1 per cent increase in unit labour costs for 1978 was also appreciably above this target.

Thus, while inflation was certainly reduced over the first three years of the AIP, the implicit targets for the three years of the program were not met. More importantly, rather than stabilizing or declining further after the termination of the controls element of the AIP, inflation rose back to 10+ per cent levels over the three years following 1978.[15]

Inflation was reduced to relatively low levels only after the 'non-gradual' tightening of monetary policy in the United States and Canada in 1979–80, and after the ensuing deep recession of 1981–82. Issues relating to the sharp decrease in inflation, to the severity of the recession, and to policy, in the early 1980s are beyond this paper's scope.

a. Fiscal and monetary policy—assessment

How successful were fiscal and monetary policy in meeting the stated aim of "increasing total demand and production at a rate consistent with declining inflation" (Canada. Minister of Finance 1975b, 3)? A simple test is to compare actual rates of increase in nominal GDP with rates of growth that might be considered to correspond to the objective. At the time the AIP was introduced, the annual growth in potential real output

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[14] Calculated using an annual index of the price of the Canadian dollar in currencies of all other G-10 countries (Canada. Department of Finance 1994, 141).

[15] Real wage rates, however, actually declined from 1978 through 1981, unlike the period of very high settlements in the mid-1970s.

was generally considered to be about 5 per cent (although this proved high in hindsight). Coupled with the implicit inflation targets for the three years of the program, this would suggest rates of growth of nominal GDP of about 13, 11, and 9 per cent for the three years of the program, or a compound average growth rate from 1975 to 1978 of 11.3 per cent. As shown towards the bottom of column (1) of Table 2, the average growth rate of nominal GDP over the 1975–78 period was, in fact, 12.1 per cent; in my view, this excess of 0.8 percentage points should be considered to be a relatively small divergence.

Given the fact that price inflation was already tending to exceed the implicit price targets during the second and third year of the AIP, at a minimum it might be concluded that it would have been preferable for monetary and fiscal policy in the early years of the program to have erred on the side of modestly undershooting, rather than modestly overshooting, the demand-growth target. But other factors were also important in the failure to meet the implicit inflation targets in the second and third years of the program: the roles of food and energy prices have already been mentioned; an aspect of the controls-system design that may have contributed will be discussed in subsection III.B.b.

Nominal GDP grew at an average rate of 13.8 per cent from 1978 to 1981, some 5 percentage points higher than the 8.7 per cent that would have been consistent with 4.5 per cent real growth—one contemporaneous estimate of potential growth[16] (again, this proved high in hindsight)—and a 4 per cent inflation target. While my division of the discussion of demand management policy into the period of the three years from 1975 through 1978 and of the three years thereafter is somewhat artificial, given lags in the impact of policy, it does seem fair to conclude that things went more seriously wrong with fiscal and monetary policy—or at least with the lagged impacts of fiscal and monetary policy—after 1977.[17]

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[16] By 1978, it was recognized that the trend of real growth appeared to have slowed.

[17] In his detailed year-by-year analysis of the 1975–80 period, Courchene (1981, 29ff) argues that monetary policy was "far too expansionary" in 1977.

Table 2. Indicators of Growth in Nominal Demand, Output, Price, and Productivity, plus Unemployment Rate
(Annual % rates of change, except for column (5) which is level (%))

Year	Nominal GDP	Real GDP	GDP deflator	'Productivity'	Unemployment rate
	(1)	(2)	(3)	(4)	(5)
1970	7.3	2.6	4.6	2.3	5.7
1971	9.2	5.8	3.3	4.2	6.2
1972	11.7	5.7	5.6	3.4	6.2
1973	17.3	7.7	8.8	2.9	6.5
1974	19.4	4.4	14.4	-0.6	5.3
1975	12.8	2.6	9.9	-0.2	6.9
1976	15.4	6.2	8.7	5.4	7.1
1977	10.1	3.6	6.3	2.0	8.1
1978	10.9	4.6	6.0	0.0	8.3
1979	14.3	3.9	10.0	1.0	7.4
1980	12.2	1.5	10.7	-0.4	7.5
1981	14.9	3.7	10.8	2.0	7.5
1982	5.2	-3.2	8.7	-1.3	11.0
1983	8.4	3.2	5.0	4.4	11.8
Compound annual growth rates for subperiods					
1975-78	12.1	4.8	6.9	2.5	
1978-81	13.8	3.0	10.5	0.8	
1975-81	12.9	3.9	8.7	1.6	

Sources: Canada. Department of Finance (1994)
Col. (1) p. 6. GDP at market prices.
Col. (2) p. 8. GDP at 1986 prices
Col. (3) p. 87. GDP implicit price index
Col. (4) p. 74. Output per person hour, business sector non-agricultural industries
Col. (5) p. 57. Unemployment rate
Compound annual growth rates are calculated using the level of the series in the last year shown relative to the level in the first year shown.

In the case of monetary policy, this is, at first glance, surprising. For the 1975–81 period, the Bank of Canada succeeded in keeping the growth rate of the narrow money supply[18] within the series of declining growth rate targets it had set and which were noted above in subsection III.A.a.[19, 20] The explanation generally offered for the failure of restrained monetary growth to have a stronger impact on the growth of nominal demand is that, with the high interest elasticity of the demand for the narrow monetary aggregate, "The modest changes in interest rates that were required in the short run to keep M1 within its target band were not enough to have much impact on real output or prices" (Thiessen 2000–2001, 42). Financial innovations that tended to shift downward the demand for M1 compounded this tendency, while simultaneously making it more difficult for the Bank to interpret the behaviour of the demand for money (see Thiessen 2000–2001, 42; Freedman 2004, 319). The resulting instability in the relation of M1 to the economy led to the abandonment of the use of M1 growth-rate targets in November 1982.

There has been considerable debate regarding whether the Bank should at the time have given more weight to other indicators, such as the high growth rates of M2 and the very low levels of real interest rates, especially in 1976 and 1977 (see columns (2) and (3) of Table 3), which suggested that monetary policy from 1975 through 1978 was not in fact very restrictive.[21]

In 1980, the Governor of the Bank of Canada concluded that "it would have been better if the slowing of monetary growth had been less gradual so that it would have had more impact on inflation" (Bank of Canada 1980a, 17).

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[18] Data on annual growth rates for the narrow money supply (M1), and for a broader measure of the money supply (M2), are provided in columns (1) and (2) of Table 3. The calendar-year basis used in the table does not match the time periods for which the Bank set its successively lower M1 growth targets.

[19] See, for example, Sparks (1986, 138).

[20] Budget speeches over the period from 1975 onward explicitly endorsed the Bank's policy of restricting monetary growth targets as a key part of the effort to reduce inflation. At the same time, in the late 1970s and very early 1980s, the budget documents contained projections of inflation that were well above levels that might be judged to be consistent with the Bank's monetary growth targets.

[21] See, in particular, Courchene (1981, 29–120).

Table 3. Indicators of Monetary and Fiscal Policy

Year	Money supply growth (%)		Real interest rate est. (%)	Bud. Bal. – Federal			Bud. Bal. – Total		
				Act.	C.A.	C.A./I.A.	Act.	C.A.	C.A./I.A.
	M1	M2		(% of GNP*)			(% of GNP*)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1970	2.4	7.2	3.3	0.3	0.6	1.1	0.9	1.4	2.3
1971	13.0	12.6	1.1	-0.2	0.0	.3	0.1	0.3	0.9
1972	14.4	10.8	1.2	-0.5	-0.6	-.2	0.1	-0.1	0.7
1973	14.5	14.7	2.8	0.3	-0.5	0.4	1.0	-0.1	1.5
1974	9.3	20.5	2.0	0.8	-0.3	0.6	1.9	0.5	2.1
1975	14.0	15.2	-1.6	-2.3	-2.3	-1.8	-2.5	-2.4	-1.2
1976	8.0	13.0	0.4	-1.8	-2.2	-1.6	-1.7	-2.2	-1.2
1977	8.5	14.3	0.2	-3.5	-3.2	-1.6	-2.4	-2.1	-1.4
1978	10.1	11.1	2.5	-4.6	-4.3	-3.6	-3.2	-2.8	-1.8
1979	6.9	15.7	4.2	-3.5	-3.4	-1.8	-1.9	-1.7	0.2
1980	6.4	18.9	3.5	-3.5	-2.7	-1.2	-2.1	-1.0	0.6
1981	3.8	15.2	6.7	-2.4	-1.8	0.0	-1.2	0.4	2.2
1982	0.6	9.3	3.2	-6.0	-3.1	-1.4	-5.3	-1.4	0.3
1983	10.3	5.7	3.0	-6.3	-3.2	-2.3	-5.9	-1.8	-0.9

Sources and notes:

Col. (1): M1: Currency and demand deposits. Source: Canada. RCEUDPC (1984, 8.2)

Col. (2): M2: Currency and all chequable currency and notice deposits. Source: ibid.

Col. (3): Estimates of real interest rates can be calculated in a number of ways. This one is based on the annual average chartered bank prime lending rate (Source: ibid., 8.4), adjusted for the increase in the CPI less food (1970–71), or the CPI less food and energy (1972–83). (See Table 1 for CPI sources.) The reason for using the adjusted CPIs is that these are arguably more useful indicators of expected inflation, which is the concept being approximated in estimating real interest rates.

Cols. (4) through (8): Source: Purvis and Smith (1986, Tables 1–2 and 1–4). These use estimates prepared, for the most part, by the Department of Finance in 1983.

All estimates are on a national income and expenditure accounts, calendar-year basis.

Actual budget balances for the federal (col. (4)) and total (col. (7)) government sectors are expressed as percentages of current dollar GNP.

*Cyclically adjusted (cols. (5) and (8)) and cyclically plus inflation-adjusted (cols. (6) and (9)) balances are expressed as percentages of cyclically adjusted current dollar GNP.

Fiscal policy, as judged by estimates of the cyclically adjusted budget balance,[22] can be viewed as having shifted substantially towards expansion in 1975, further towards expansion in 1977 and again in 1978, and then back towards somewhat less expansion in 1979, 1980, and 1981. (See Purvis and Smith 1986, for a general discussion.) With the benefit of hindsight and with a focus on the inflation targets, one might characterize fiscal policy as having erred on the side of expansion—especially in 1977 and 1978—and on the side of insufficiently sharp reductions in expansion in 1979 and 1980.

My interpretation of the reasons underlying the policy stance that was adopted at the time to some extent echoes the discussion in subsection II.B of the failure of demand management policy to restrain inflation in the first half the 1970s. While recognized at the time as being subject to uncertainty, the estimates in use of the non-inflationary level of unemployment were likely still too low, while the estimates in use of the non-inflationary level of output (potential output) were too high, due both to an underestimate of the NAIRU and to an overestimate of the trend in productivity growth. For example, the March 1977 budget speech, while stating that "[o]ur first objective must be to maintain the underlying trend to lower inflation" also stated that "What is required now is stimulus of a degree that can safely be absorbed" and "with present levels of unemployment, further stimulus is required" (Canada. Minister of Finance 1977a, 7, 3, 10). But the unemployment rate just prior to the March 1977 budget was about 7.5 per cent. By the early 1980s, analysis suggested that unemployment of this level should be viewed as being well within the range of estimates of the NAIRU (see subsection II.B.c). Had the degree of demand pressure relative to capacity been viewed in this way at the time, an approach that gave priority to ensuring that inflation fell would presumably not have shifted—even temporarily—towards further fiscal expansion in 1977 and 1978.

As regards the estimates of potential output, in 1979 a Department of Finance document (Canada. Department of Finance 1979, 83–85) stated that "Currently, the trend growth

[22] See column (5), Table 3 for one set of estimates of the federal government's cyclically adjusted budget balances expressed as percentages of GNP. The cyclically plus inflation-adjusted budget balances in column (6) indicate a generally similar pattern, though with a somewhat sharper shift to less expansion after 1978. For reference, actual, cyclically adjusted, and cyclically plus inflation-adjusted balances for the total government sector are shown as columns (7), (8), and (9), respectively.

rate is assumed to be 4.5 per cent, reflecting a rough allowance for a reduction in the trend growth of the population of working age and for some slowing in the rate of productivity growth. This approach shows real GNE in 1978 about 5 per cent below its trend."[23] By 1983, the Department of Finance had lowered its estimate of trend growth more sharply. The rate of increase of trend productivity per person employed, which had been 2.4 per cent per year from 1956 to 1973, was estimated to have dropped to 1.0 per cent per year from 1974 to 1978, and was assumed to have fallen further alternatively either to 0.5 per cent per year or to virtually to zero for 1979 to 1982. In 1983, using the lower of the 1979–82 productivity growth assumptions, real GNE in 1978 was estimated to have been only 0.6 per cent below its trend or potential level (Canada. Department of Finance 1983, 56–60).[24] The Department of Finance's most recent (2004) estimates show real GDP in 1978 as being 2.0 per cent above potential.[25]

A final point that might be noted, relating to fiscal policy in the broader sense, concerns the "government expenditure policy" element of the AIP. The actual growth of federal expenditures met the commitment that expenditures would not "rise more quickly than the trend of the gross national product."[26]

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[23]The next sentence noted: "This trend, however, should always be considered as subject to possible revisions."

[24] For a comprehensive review of the course of productivity growth over this period, and of potential explanations for the decline in productivity growth, see Stuber (1986).

[25] Figures supplied by the Fiscal Policy Division, Department of Finance, for the values for potential output underlying the estimates of cyclically adjusted budget balances in Canada (Department of Finance 2004, 51).

[26] Program expenditures declined from 19.5 per cent of GDP in 1975–76 to 17.6 per cent in 1978–79 and to 16.9 per cent in 1981–82; program expenditures excluding major transfers to other levels of government declined from 15.5 per cent in 1975–76 to 13.7 per cent in 1978–79 to 13.2 per cent in 1981–82. Total expenditures (including public debt charges) declined from 21.8 per cent of GDP in 1975–76 to 20.7 per cent in 1978–79, but then rose to 21.1 per cent in 1981–82. On the National Economic and Financial Accounts basis, expenditures and expenditures less public debt charges were also lower relative to GDP in 1978 or 1981 than in 1975. The decline in the ratio to GDP still holds if adjustment is made for the partial replacement of expenditures on family allowances by refundable personal income tax credits, which was equivalent to about 0.25 per cent of GDP and took effect in 1979. (The figures for program expenditures excluding major transfers to other levels of government, noted in the first sentence of this footnote, effectively adjust for the partial replacement of transfer payments to provincial governments by a transfer of tax points under the Established Programs Financing Arrangements, which took effect in 1977.) Government expenditure data are from the Department of Finance (Canada. Department of Finance 2004).

b. Controls over prices and incomes—assessment

As noted at the beginning of section III, after the first three quarters following introduction of the AIP—during which transitional considerations were no doubt important in applying the guidelines—compensation increases fell to levels only marginally above the standard guideline ceilings. As well, there was no sharp jump in rates of compensation increase immediately following decontrol, although rates of increase in major settlements did start to show an upward trend in the third quarter of 1978, which continued through 1981. A number of econometric studies have concluded that the controls exercised a significant independent effect in lowering rates of wage increase:

> Most [studies] conclude that the AIP [the controls element] lowered wage increases by 2.5 to 4 per cent during the three years it was in operation. It is estimated that a comparable reduction in wage inflation by means of monetary restraint alone would have required unemployment rates of approximately 12 to 13 per cent [recognized as possibly subject to some overestimation], as compared with the 7 to 8 per cent actually experienced.
> (Canada. RCEUDPC 1985, 351; see also Riddell 1986, 80–82 for results from individual studies.)

The impact of controls on prices is more difficult to assess, given the range of factors affecting the behaviour of prices, and has been the subject of fewer studies. But a number of studies did conclude that there was

> . . . a significant restraining effect on price inflation. . . . Wilton's (1984) estimates indicate that price inflation would have been 1–2 per cent higher in each of 1977, 1978 and 1979 in the absence of controls. There was little independent effect on prices in the first year of the program because existing wage contracts were not abrogated. The effect on price inflation became larger as the AIP proceeded, and indeed peaked in 1979, the year following the end of the program.
> (Riddell 1986, 82–83)

The controls element of the AIP is thus generally judged to have operated quite successfully. There were presumably some economic costs from a degree of distortion of relative wage rates and prices caused by the controls, including the distortion of relative

wages that would potentially result from the $2,400 ceiling on wage increases. But "studies have not documented any clear cases of resource misallocation" or shortages (Riddell 1986, 87). It seems likely that any such economic costs, together with the administrative costs of compliance with the controls by firms and of application of the program by government, were sufficiently small that most would conclude that there was a significant net gain from including the controls element in the AIP in the circumstances of the day.[27]

Nonetheless, with the benefit of hindsight, one might question at least one aspect of the program's design. Provision in the compensation guideline of the 2 percentage point factor for a "share in increases in national productivity" left very little margin of safety if productivity growth slowed, or to absorb the increase in energy prices that was recognized to be required, or to absorb the effects of depreciation of the exchange rate that might have been anticipated, given the extent to which increases in costs in Canada had outpaced increases in costs in the United States in the two years immediately preceding the introduction of the AIP. This feature might be viewed as having contributed to the failure to achieve the implicit inflation targets.[28] But the designers of the AIP may well have judged that the 2 per cent real income gain offered by the program would likely be viable, that anything less might have prejudiced the public acceptability of the program, and that attempting to include 'contingent' provisions in the event of adverse developments would have been complex and could have prejudiced public understanding of the program.

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[27] The above judgment that the economic benefits of controls likely outweighed the costs of the induced economic distortions, and Riddell's characterization of the evidence regarding resource misallocation, could be subject to serious challenge if one were to view continuing provincial rent controls as appropriately included among the consequences of the AIP. As noted, when it introduced the AIP the federal government invited those provincial governments that did not already have rent controls to introduce them. But provinces did not in general eliminate rent controls at the termination of the AIP, and rent controls still exist in several provinces, including Ontario.

[28] The adverse impact on inflation would have been more serious if the basic protection factor for the third program year had been adjusted upward by the excess of actual inflation over the second-year basic protection factor, as called for in the original legislation.

Another design feature of the controls program that has been questioned is the decision not to abrogate existing contracts (Wilton 1984, 173).

C. The AIP—conclusions

As discussed in the preceding subsections, the AIP did not meet its implicit inflation targets for the 1975–78 period, and also did not succeed in shifting inflation to a stable, reasonably low track in the years immediately following decontrol. The program did succeed in reducing inflation, particularly wage inflation, from very high levels, while avoiding any serious recession in the shorter run.

A number of unexpected factors worked against achieving the program's objectives:

- As can be inferred from Table 1, high increases in food prices added significantly to the rate of increase in the CPI, especially in 1978. The second international oil price/supply shock, in 1979, pushed the rate of price increase up in 1979 and 1980, and contributed to international recession.

- The sharp and unexpected slowdown in underlying productivity growth, noted in subsection III.B.a, contributed to a misreading of the room for non-inflationary expansion of the economy, which in turn contributed to fiscal policy's having been more expansionary than now seems appropriate. It also resulted in the compensation guidelines being higher than might now be viewed as desirable. This slowdown in productivity growth would also have been a source of temporary inflationary pressures in the post-controls labour markets, given that employers and employees would take some time to adjust downward their expectations as to the real income gains that could realistically be provided, on average, by wage settlements.

- The shifts in demand for M1 complicated the task of monetary policy and tended to cause policy to be less constraining than intended.

As was the case in the first half of the 1970s, poor Canadian inflation performance in the second half of the 1970s had a good deal in common with performance in many other countries. In particular, inflation in the United States—after having slowed more quickly and to a greater extent than in Canada in 1974–76—actually increased to a greater extent

than in Canada from 1977 through 1980. U.S. inflation, however, slowed more quickly after 1980.

It is important to recognize that supply-side developments would have made it difficult to achieve fully the goals of the AIP no matter how well-designed and implemented the monetary, fiscal, and incomes policies. It is also worth noting that Canada's comparative inflationary performance was certainly not the worst among the G-7 countries, but rather 'in the middle of the pack.' Still, several commentators from the 1980s onward have concluded, with the benefit of hindsight, that monetary and fiscal policy in Canada in the second half of the 1970s were not such as to give the AIP a strong chance of fully succeeding.

- The restraint provided by monetary policy is viewed as having been too gradual.

➢ As noted earlier, in 1980 the Governor of the Bank concluded that "it would have been better if the slowing of monetary growth had been less gradual" (Bank of Canada 1980a, 17).

➢ Writing in 1981, on the basis of his comprehensive review of monetary policy over this period, Courchene (1981, 4) concluded that:

> - Monetary gradualism, as implemented by the Bank of Canada, has been too gradual.
> - The Bank undermined its own monetary gradualist approach by elevating exchange rate considerations to the level of a goal of policy.
> - The Bank's definition of money and its control mechanism have hampered its performance.
> - The other government policy levers [including fiscal policy] have failed to provide meaningful support in the Bank's anti-inflation fight.

➢ In 1982, Richard Lipsey (1984, 47) concluded that:

> Canadian gradualism failed in the 1970s for two main reasons.
>
> 1. Because it was an attempt to win the battle without taking casualties. Monetary restraint was applied so gently that there was plenty of time for other monetary instruments to take over from M1. Indeed, the gradual decline in the rate of M1 growth was matched by a gradual increase in the rate of growth of M2.
> 2. The Bank of Canada failed to adjust its targets downwards when there was a major downward shift in the demand for M1 in the late 1970s.

- Fiscal policy, at least in part because of a misreading of the degree of effective slack in the economy, provided additional stimulus in 1977 and 1978, and was relatively slow to withdraw the stimulus.

- In their study on fiscal policy for the RCEUDPC, Purvis and Smith (1986, 32) argued that:

  > . . . this fiscal expansion was counter-productive to the espoused goal of disinflation. [The] deficits also contributed to the growth in the real stock of government debt that raised serious policy issues and constrained the ability of the federal government to act in ensuing years.

- Lipsey (1981, 567) also criticized fiscal policy, asserting in his 1981 presidential address to the Canadian Economic Association that:

  > . . . the Bank of Canada should get some strong support currently totally absent from fiscal policy. . . . Then we might be able to restrain demand with means that exert temporary pressure to lower rather than to raise interest rates. Such action might also influence inflationary expectations by persuading people that the government is serious about the anti-inflationary battle.

In the view of several commentators in the 1980s, the AIP's controls over prices and incomes appear to have fared better than its monetary and fiscal policy elements. In his major study for the RCEUDPC, Riddell (1986, 78–80) characterizes the controls element of the AIP as "[one of the few] example[s] of a temporary incomes policy with desirable design features." The two key design features were that it was introduced "as part of a package which attempted to include the appropriate restraint in the growth of aggregate demand," and that its approach of "gradually declining norms for wage and price increases" was consistent with what had been identified in recent theoretical research "as important in an economy with overlapping wage contracts, given the decision not to abrogate existing agreements." As noted in subsection III.B.b, however, one could question whether the compensation guidelines were too generous, especially from hindsight, given the actual experience of productivity growth.

My discussions of Canadian inflation performance and policy in the first and second halves of the 1970s have made only brief references to comparative experience elsewhere, especially in the United States. The similarities between the Canadian and U.S. experiences are striking. As noted earlier, the Canadian policy decision to move fairly strongly to counter inflation in 1975 followed shortly after demand management policy in the United States moved rather strongly to counter inflation in 1974; the Canadian monetary policy decision to move very strongly to counter inflation in 1979–81

followed shortly after the introduction of very strong anti-inflationary monetary policy in the United States in 1979–80.

Currently, there is an interesting debate in the United States involving academics and Federal Reserve System officials, which revisits policy in the 1970s and offers a range of interpretations for the motivation of the policy-makers of that time. Many of the themes in the debate are very similar to those in the Canadian discussion, as illustrated by the following three excerpts from recent articles:

> In this paper, we reexamine the sources of stagflation in the 1970s, and argue that the combination of monetary policy directed at tight stabilization of the unemployment rate near its perceived natural rate and severe underestimation of the natural rate, rather than adverse supply shocks, explains much of the woeful performance of the U.S. economy in the 1970s. With hindsight, it is clear that policymakers in the 1960s and much of the 1970s were far too optimistic of how low the unemployment rate could go before igniting inflationary pressures. Given the activist bent of policymakers influenced by the "New Economics", these natural rate misperceptions contributed to an extended period of policy being excessively stimulative, resulting in rising inflation.
>
> . . . .
>
> Although inflationary expectations were initially well-anchored owing to the period of price stability in the 1950s and early 1960s, this advantage was squandered during the late 1960s as policy errors and the resulting rise in inflation caused inflation expectations to drift upward. By the time that the supply shocks of the 1970s hit, inflation expectations were already shifting, exacerbating the response to the shocks and contributing to stagflation.
> (Orphanides and Williams 2005, 1–2)

> Both in the 1950s and in the 1980s and 1990s, the key features of policymakers' models of the economy were a realistic view of sustainable unemployment and a conviction that inflation was very costly. In between these two points, however, there was an extended detour in policymakers' beliefs toward very optimistic estimates of sustainable unemployment and deep pessimism about the ability of economic slack to reduce inflation.
> (Romer and Romer 2003, 39)

> A weakness of [explanations along the lines in the preceding two excerpts], however, is that none of them recognize a key aspect of policymaking during this period: Poole's observation that in the 1970s, "Milton Friedman's dictum that inflation is always and everywhere a monetary phenomenon was by no means widely accepted." An alternative explanation of the Great Inflation, the *monetary policy neglect*

> *hypothesis*, attributes the Great Inflation to the flawed analysis that Poole and Friedman highlight.
> (Nelson 2004, 2)

The discussion in this paper, and likely in the U.S. papers quoted above, has taken the perspective of a policy adviser/analyst in suggesting the considerations that led to key policy decisions and also in its explanation of what, with the benefit of hindsight, appears to have gone wrong. Thus, I have emphasized the evolving understanding of what monetary and fiscal policy could be expected to achieve in terms of inflation and unemployment objectives, and the factors at the time that tended to cause inappropriate quantitative estimates of what was achievable. I believe that my discussion of the Canadian experience is reasonably representative of the views—both those that were held at the time and their subsequent evolution—of advisers/analysts at the Department of Finance and the Bank of Canada, and of a fair proportion of Canadian academics concerned with macroeconomic policy. But when trying to understand the motivation of political decision makers, one should also note the importance of judgments regarding political acceptability. It is probably fair to say that, in the 1970s, Canadian policy-makers just could not conceive of adopting policies that would run substantial risks of pushing unemployment above 10 per cent, no matter what the prospective gains on the side of inflation. (As well, there would always be uncertainty as to how confident one could be in the gains on the inflation side.) One might conjecture that policy decision makers and the public, as well as policy advisers and analysts, may have had to go through the process of "learning by doing"—trying stimulative policies in the early 1970s in an effort to achieve the widely held objective of obtaining lower rates of unemployment, and then trying gradual monetary and fiscal restraint coupled with incomes policy in an effort to reduce inflation while avoiding a policy-induced recession of any severity.[29] Finally, when high rates of inflation reoccurred, the determination to

[29] As well, the decision to seek a consensus on incomes restraint in 1974 was likely viewed as inconsistent with applying demand management policy that was clearly tough. In 1975, the controls element of the AIP was put forward as offering the possibility of lowering inflation without incurring much increase in unemployment; again, it would have seemed inconsistent to many—given this rationale—to accompany the controls with demand management policy that created a risk of substantially higher unemployment before one had seen how effective the controls were.

reduce inflation strengthened, and more drastic anti-inflationary monetary measures were—if not welcomed—accepted by the political process. (This conjecture is not intended to minimize the potential for determined and effective leadership to shift the bounds of the 'politically acceptable.')

Subsequently, given the experience with the costs and disruption caused by high inflation, and with the severe recessions that eventually were associated with ending such inflation, the political process has been open to accepting policies that have offered much more assurance of keeping inflation low. While these policies may also, in fact, do a better job of reducing fluctuations in unemployment than did the policies of the 1970s (see section IV, point 5), they deliberately do not create optimistic hopes as to what policy could do to reduce (or avoid increases in) unemployment, as many government statements did in the first half, and to some extent in the second half, of the 1970s.

IV. Lessons Learned from the AIP Experience

1. The AIP recognized in principle the crucial role of non-inflationary macroeconomic policy, together with the potential role of controls, in easing the economy's adjustment to lower inflation. In hindsight, perhaps the prime lesson is that, when one is trying to reduce inflation from high levels, with much uncertainty as to how solidly underlying expectations of inflation are adjusting downward, it is wise to err on the side of undershooting the level of demand judged to be consistent with the inflation targets, rather than overshooting it.

2. What should we conclude as to the merits of a prices and incomes control component in this type of situation? As suggested earlier, the controls component of the AIP should probably be judged to have worked reasonably well. My perception is, however, that there has been relatively little interest in the possibility of using controls again, if similar circumstances were to occur. There are, however, some significant exceptions to this assertion. Lipsey did suggest in 1981 that an anti-

inflationary policy package include some form of incomes policy (Lipsey 1981, 568). The federal government did include the "6 and 5" wage guidelines for federal employees as part of its 1982 policy, partly in the hope that the guidelines might tend to achieve through example-setting what the AIP compensation guidelines achieved through legal requirement. As well, the RCEUDPC did recommend "the temporary use of controls or incentive-based incomes policies if the country needs to reduce inflation again" (Canada. RCEUDPC 1985, 390).

Perhaps, as confidence has grown that the authorities will be successful in avoiding situations in which there is a need to unwind a substantial rate of inflation, the use of temporary controls has come to be regarded as not very relevant. It is argued that it is only in situations where there is a need to unwind substantial inflation that there is any serious case for incomes policy. (On the inadvisability of controls in other situations, even apart from the fact that controls would likely be within federal constitutional authority only in exceptional, emergency situations, see Riddell 1986, 87–91.)

3. A more general lesson for demand management policy from the experience of the 1970s, and one that has been drawn for the United States as well, is that the frameworks for such policy in the 1970s were fundamentally flawed. Fiscal policy throughout that decade, and monetary policy in the early 1970s, gave very substantial weight to achieving a level of unemployment that was judged to be consistent with sustainable growth. But, as evidenced at several stages in the 1970s, uncertainties regarding the unemployment rate consistent with a given inflation objective, and regarding the current rate of underlying productivity growth, are such that pursuit of unemployment or real growth targets can result in the unintended creation of substantial inflationary pressure and in 'cumulative error' with regards to inflation and with regards to fiscal deficits/debt.

   Some form of effective 'nominal anchor' for demand management policy seems to be required in order to avoid cumulative error. In principle, such an anchor can

provide both an operating guide for monetary policy and a means of enhancing the credibility of commitments to non-inflationary policy. It thus also helps to anchor expectations of future inflation. The approach of targeting monetary growth rates, adopted by the Bank of Canada and by several other central banks in the mid-1970s, did not prove to be an adequate form of nominal anchor.[30] The current inflation-targeting approach appears to be much more successful in this role.

As I understand it, the current approach uses the 1- to 2-year-ahead forecast of inflation as the intermediate target in guiding the Bank's adjustment of short-term interest rates.[31] In developing such inflation forecasts, there is still a need to make judgments and forecasts about the labour market conditions and real growth that will be consistent with the avoidance of inflationary (or deflationary) pressure. Thus, the current approach is subject to some of the same uncertainties as the earlier framework, and improvement in the understanding and estimates of the NAIRU and of potential output growth remain important. But the inflation targets, coupled with a willingness to take as strong an interest rate action as required should inflation be expected to diverge from the targets,[32] provide a faster corrective mechanism and a much better assurance of avoiding cumulative problems in the event of error in the forecasts of the course of employment and output, and/or error in judging the level of the NAIRU and of potential output.

It may be noted that supply shocks, such as an international oil-price increase, that contributed to the difficulties experienced during the AIP and its aftermath, also pose challenges under the new approach. To what extent should the direct impacts on

[30] For a discussion of the importance of a nominal anchor, see Freedman (1989). For a discussion of the search for an adequate nominal anchor for monetary policy, culminating in the selection of the inflation-targeting approach, see Freedman (2001), and more briefly Freedman (2004, 218–23). For a discussion of fiscal policy and the role of deficit/debt targets, see Dodge (1998).

[31] See, for example, Freedman (2001).

[32] In general, the long-run response of the nominal interest rate needs to exceed the change in the inflation rate (Orphanides and Williams 2005, 10).

prices of such shocks be accommodated? In applying the targets, the practice of focusing on 'core inflation'—which excludes the impact of several volatile food and energy components of the CPI—indicates a willingness to accommodate direct impacts of supply shocks, but no more than that. The ability to provide limited accommodation of such shocks in this way, without prejudicing the longer-term inflation goals, depends on the credibility of the general policy—an issue revisited in point 5.

4. A striking feature of the 1970s, and a contrast with the period since the late 1980s, is that there was relatively little discussion of the long-term objective for inflation. There seemed to be a tacit acceptance of the prospect that inflation rates of 4 per cent or higher might extend indefinitely into the future. The goal of 'price stability' was mentioned on occasion, including in the 1975 *Attack on Inflation* white paper (Canada. Minister of Finance 1975b, 1), but that paper did not address what longer-term objective should follow the 4 per cent implicit target for the third year of the program. A 1981 Department of Finance paper included an "alternative projection with lower rates of inflation" that showed inflation declining rather slowly from (a forecast) 12.7 per cent in 1981 to 5.8 per cent by 1987. This was under an assumption of quite modest rates of increase in real wages, averaging 0.5 per cent per year from 1985–87, somewhat below the rates of productivity growth assumed for these years[33] (Canada. Department of Finance 1981, 28).

   Judging by this apparent reluctance in the 1970s to think hard about, and discuss publicly, the longer-term inflation objectives, one might infer that advisers and decision makers had not fully accepted the implications of the 'no long-term trade-off' model. Benefits of lower inflation, in terms of the more efficient functioning of the economy and the avoidance of arbitrary transfers of economic welfare across the population, would be much more likely to outweigh the costs (*temporarily* higher

[33] Accompanying this inflation projection was a projection of unemployment rates that peaked at 8.1 per cent in 1983 and then gradually declined.

unemployment and lower output) expected from low-inflation policies under this model than they would be to outweigh the costs from disinflationary policy under the earlier Phillips curve view. Yet, my recollection is that the possibility of trying to obtain very low rates of inflation was not seriously examined in most policy discussions.

Another possible inference is that high rates of inflation may tend to lead macroeconomic policy discussion to focus on the short run.

5. Probably the most basic lesson from the experience of the 1970s, including the experience with the AIP, is the great importance of avoiding situations where inflation creeps, crawls, or walks higher. The fundamental reason is the substantial economic costs that have been experienced in unwinding such situations, coupled with the general skepticism that a situation of stable moderate-to-high rates of inflation would be viable. The approach of targeting monetary policy to achieve low, stable rates of inflation, followed in Canada since 1991, and the broadly similar approaches followed in the United States and several other countries since about that time, appear to provide assurance of avoiding major, sustained outbreaks of inflation.[34]

   Not only does the current policy approach offer considerable assurance against having to face the difficulties of dealing with a major outbreak of inflation, it appears to have other significant, if less dramatic, benefits in terms of the operation of the economy.

   The Bank of Canada has developed an impressive body of applied research on the functioning of the economy under the monetary targeting approach; Longworth (2002) provides a valuable synthesis of the results of this research. In the period

[34] See Paulin (1995) for a review of how widespread the achievement of very low rates of inflation has been among developed countries. See Batini, Kuttner, and Laxton (2005) for a recent review of the performance of inflation targeting in both developed countries and certain middle-income developing countries.

since 1991, and especially since 1995, inflation has in fact become "low, stable, and predictable." Short- and long-term expectations of inflation have become consistent with the inflation targets. Interest rates, in addition to becoming much lower in nominal terms, have become less variable. Presumably as a result of expectations of low, stable inflation, greater use is being made of longer-term contracts in labour and financial markets. There is evidence that shocks to prices in important sectors—for example, from swings in the exchange rate or from international energy prices—feed through to a lesser extent than previously into the overall price level. Variations in the output gap have been smaller than in the 1980s, and almost certainly smaller than in the 1970s. The benefits of all this include "a better allocation of resources [arising from] a better allocation of labour, lower costs of planning and entering into contracts, and better-functioning and more complete financial markets" (Longworth 2002, 16).

In part, the increased general stability of the economy in the past 10 years relative to the 1980s or earlier may result from 'luck': adverse shocks, while still significant, have arguably been smaller than occurred earlier, especially in the 1970s. A part of the increased inflation stability may come from structural changes; for example, the increased openness to international competition. However, a recent study of 24 countries concludes that, in most of them, including Canada, "more efficient [monetary] policy has been the driving force behind improved macroeconomic performance," while "reduction in the variability of the aggregate supply shocks" and "changes in the structure of the economy" have also played a role in several countries (Cecchetti, Flores-Lagunes, and Krause 2004).

An open question is the extent to which well-anchored non-inflationary expectations, based on confidence in non-inflationary monetary policy, can explain improvement in various aspects of performance and, in particular, the extent to which it can explain reduced vulnerability to inflationary shocks. If there are confident expectations that the monetary authorities will succeed in returning inflation to the

target range within a year or two, supply-side shocks to particular prices, and short-term variations in domestic demand, may not have much impact on wages or, more generally, on 'inertial inflation.' Of course, this result would *not* create the conditions under which the monetary authorities could reduce unemployment on a sustained basis through expansionary monetary policy. Such expansion would threaten confidence in the continuing low rate of inflation that is the cause of less vulnerability to inflationary shocks in the first place.

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Appendix
Seminar Commemorating the 30th Anniversary of the Anti-Inflation Board
Tuesday, 6 October 2005

Participants:

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Jack Biddell
Kathryn Bouey
Anthony Campbell
John W. Crow
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